REMARKS

Claims 1-12 and 16-28 are all the claims presently pending in the application.

Claims 1-12 and 16-28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Noble (U.S. Patent No. 5,954,596), in view of Beach (U.S. Patent No. 6,623,378 B2), Thorne, et al. (U.S. Patent No. 5,800,285), Sasamoto (U.S. Patent No. 6,193,614 B1) and Kosmatka (U.S. Patent No. 5,830,084). Claims 1-11, 16-22 and 24-28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Noble, in view of Kosmatka. Claims 12 and 23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Noble, in view of Kosmatka and Sasamoto.

As noted above, Applicant propose traversing these rejections by emphasizing that the claimed invention (e.g., as recited in claims 1, 16, 28 and similarly recited in claim 9) includes a face portion having a thick-walled portion with a flat surface, *"wherein said flat surface comprises a substantially uniform elevation and has an outermost periphery located at a central area of said face portion"*, which is described in the Application at Figure 16 and page 32, line 19-page 33, line 20. This feature does not appear to be taught or suggested by the prior art references.

I. THE CLAIMED INVENTION

The Applicant's invention (e.g., as recited in claims 1, 16 and 28 and similarly recited in claim 9) is directed to a golf club head having a face portion formed by using a rolled metal plate member, the face portion having a thick-walled portion and a thin-walled portion. A reverse surface of the face portion includes a flat surface at the thick-walled portion, the thin-walled portion being formed around the flat surface.

Importantly, the flat surface includes a substantially uniform elevation and has an outermost periphery located at a central area of the face portion.

This novel feature allows the thick-walled portion to be forged without pressing the central portion of the face portion. As a result, the orientation of the crystal grains in the face portion (e.g., the elongated direction of the grains being in a top-sole direction) are not necessarily affected by the forging process (Application at page 32, line 19-page 33, line 4). This

helps to allow the face portion to avoid fractures along the horizontal direction of the face portion (Application at page 21, lines 14-21).

II. THE NOBLE, BEACH, THORNE, SASAMOTO AND KOSMATKA REFERENCES

The Examiner alleges that Noble would have been combined with Beach, Thorne, Sasamoto and Kosmatka to form the claimed invention of claims 1-12 and 16-28, that Noble would have been combined with Kosmatka to form the invention of claims 1-11, 16-22 and 24-28, and that Noble would have been combined with Kosmatka, and that the alleged Noble/Kosmatka combination would have been further combined with Sasamoto to form the invention of claims 12 and 23.

Applicant would argue, however, that these references would not have been combined and even if combined, the combination would not teach or suggest each and every element of the claimed invention.

First, Applicant would again note that the Examiner is surprisingly combining no less than five references in his attempt to reject the claims of the present Application. Applicant would argue that it is stretching the bounds of reason to allege that five references would have been combined as alleged by the Examiner. Thus, Applicant would submit that, based on this fact alone, it is clear that the Examiner has failed to make a prima facie case of obviousness.

The Examiner asserts that the unreasonably large number of references combined to reject the claims does not have a bearing on the propriety of the rejection. Applicant disagrees. Indeed, while it may be true that reliance on large number of references in a rejection does not, without more, weigh against the obviousness of the claimed invention (emphasis added) (*In re Gorman*, 933 F.2d 982 (Fed. Cir. 1991), Applicant would submit that common sense dictates that the more references combined by the Examiner to "suggest" the claimed invention, the less obvious the invention.

Further, Applicant would again argue that these references are directed to different problems and solutions. Therefore, Applicant would submit that these references would

not have been combined as alleged by the Examiner.

Noble discloses a golf club head having a "hollow shell" design, in which the front wall of the body varies in thickness in two planes including a first plane that is disposed substantially horizontally between the top and bottom walls of the body and a second plane that is disposed substantially vertically between the heel and toe ends of the head. Specifically, Noble teaches that the thickness of the wall 26 should be greatest at the geometric center C, and gradually decrease in a direction from the center to the heel, the toe, the top and the sole of the club head (Noble at col. 3, lines 30-39).

In contrast to Noble, Beach discloses a method for forming a golf club head having a strike plate 12 and a sole plate 32 which can be formed by casting, forging, rolling or a combination of these (Beach at col. 4, lines 15-19).

Therefore, the Examiner is surprisingly alleging that Noble which teaches that only a "hollow shell" club head and does not teach or suggest a welded face portion (e.g., face plate) would have been combined with Beach in order to form the "hollow shell" club head by "rolling or forging".

However, the Examiner should understand that **merely stating that rolling or forging was well-known does not satisfy his burden for making a prima facie case of obviousness**. Indeed, the Examiner must explain why one of ordinary skill would have modified the method of forming the Noble club head to use forging or rolling (e.g., see MPEP §2143). Applicant would argue that there is no teaching or suggestion in either of these references that would have motivated one of ordinary skill in the art to use rolling or forging instead of another method of fabrication (e.g., casting). Indeed, Applicant would submit that it would be very unlikely that one of ordinary skill in the art would have attempted to form the "hollow case" club head of Noble by rolling or forging.

Therefore, the Examiner's allegation is very unreasonable.

In contrast to Noble and Beach, Thorne discloses a golf club head 14 having parts that may be formed by forging, machining, stamping, welding or other techniques (Thorne at col. 2, lines 59-61).

Thus, the Examiner alleges that the combination of the front wall of the "hollow shell" type golf club head (e.g., Noble), formed by forging (e.g., Beach) would have been further formed by machining (e.g., Thorne). The Examiner merely alleges that machining was "well-known to the skilled artisan".

Again, Applicant would point out that **merely stating that machining was well-known does not satisfy the Examiner's burden for making a prima facie case of obviousness**. Indeed, the Examiner must explain why one of ordinary skill would have modified the alleged Noble/Beach combination to use machining instead of casting, or forging (e.g., see MPEP §2143). Applicant would argue that there is no teaching or suggestion in any of the these references that would have motivated one of ordinary skill in the art to use machining instead of another method of fabrication. Indeed, Applicant would submit that it would be very unlikely that one of ordinary skill in the art would have attempted to form the "hollow case" club head of Noble by machining.

In contrast to Noble, Beach and Thorne, Sasamoto discloses a golf club head having a face portion 7 mounted to a head body (Sasamoto at Figures 5(a)-5(b); col. 9, lines 11-34). The face portion 7 is formed of a material that was processed, by rolling, to having crystal grains which are oriented in the vertical direction of the face portion.

However, Applicant would again submit that it would be very unlikely that one of ordinary skill in the art would have attempted to form the "hollow case" club head of Noble by rolling or forging. Therefore, the Examiner's allegation is very unreasonable.

In contrast to Noble, Beach, Thorne and Sasamoto, Kosmatka discloses a contoured golf club face which is intended for educational purposes. The club face includes a non-tapered vertical stiffening region, a tapered horizontal stiffening region, four similar contoured quadrants of increasingly thinning material toward the center of each quadrant, and thickening regions at face/sole and face/crown intersection regions.

The Examiner states that "Kosmatka is cited to show without question that at least a portion of the thickened central portion of the striking member may indeed by substantially flat in profile" (April 6, 2004 Office Action at page 5). However, nowhere does the Examiner identify

any motivation for modifying the alleged combination of other references to include the allegedly "flat surface" of Kosmatka. Indeed, the Examiner merely states that teachings of Kosmatka would have been combined with Noble "to selectively stiffen the striking plate" (Id.).

However, Applicant would point out that providing a thick-walled portion may be used to "selectively stiffening the striking plate", it is unlikely that forming a thick-walled portion to include a "flat surface" may be used to "selectively stiffen the striking plate". That is, the Examiner has attempted to provide a motivation for combining the references, but is it has nothing to do with the limitation (e.g., a flat surface on a thick-walled portion) that the Examiner is alleging is taught by the combination.

Applicant would point out that **to make a prima facie case of obviousness, it is not enough for the Examiner to merely provide some motivation for combining the references, but instead, the Examiner must provide some motivation for combining the references to include the element/limitation at issue in the claim** (e.g., see MPEP §2143). Therefore, the Examiner has clearly failed to make a prima facie case of obviousness.

Indeed, Applicant would point out that a "flat surface" is clearly contrary to the teaching of Noble which teaches that the thickness of the wall 26 **should be greatest at the geometric center C, and gradually decrease** in a direction from the center to the heel, the toe, the top and the sole of the club head (Noble at col. 3, lines 30-39). Therefore, Kosmatka clearly teaches away from Noble and clearly would not have been combined with the alleged Noble/Beach/ Thorne/Sasamoto combination to form the claimed invention, as alleged by the Examiner.

Thus, Applicant would argue that no person of ordinary skill in the art would have considered combining these disparate references, absent impermissible hindsight. Further, the Examiner has failed to show some suggestion or motivation to modify the references (e.g., as required by MPEP §2143) and, therefore, the Examiner has failed to make a prima facie case of obviousness.

Moreover, Applicant would argue that neither Noble, nor Beach, nor Thorne, nor Sasamoto, nor Kosmatka, nor any combination thereof teaches or suggests *"wherein said flat surface comprises a substantially uniform elevation and has an outermost periphery located at a*

central area of said face portion", as recited in claims 1, 16 and 28, and similarly recited in claim 9.

Some conventional golf club heads may have a front wall with a varying thickness. However, such heads often break due to imperfections caused in part to a fabrication method. (Application at page 5, lines 1-10).

In an exemplary aspect of the claimed invention, on the other hand, the face portion includes a thick-walled portion having a flat surface which includes a substantially uniform elevation and has an outermost periphery located at a central area of the face portion (Application at Figure 16 and page 32, line 19-page 33, line 20). This novel feature allows the thick-walled portion to be forged without pressing the central portion of the face portion. As a result, the orientation of the crystal grains in the face portion (e.g., the elongated direction of the grains being in a top-sole direction) are not necessarily affected by the forging process (Application at page 32, line 19-page 33, line 4). This helps to allow the face portion to avoid fractures along the horizontal direction of the face portion (Application at page 21, lines 14-21).

Clearly, this feature is not taught or suggested by the cited references. Indeed, the Examiner expressly states that Noble does not teach or suggest this feature, and implies that it is not taught or suggested by the Beach, Thorne or Sasamoto references, but alleges that the feature is disclosed by the Kosmatka reference.

However, Applicant would argue that Kosmatka does not teach or suggest this novel feature. The Examiner attempts to rely on Figure 2 and col. 5, lines 30-50 of Kosmatka to support his allegations. However, this is clearly incorrect.

Indeed, Kosmatka teaches a vertical stiffening region 16 and a horizontal stiffening region 18 which have thicknesses "T" (Kosmatka at Figures 2A, 2B; col. 4, lines 46-63). Kosmatka may teach that the horizontal stiffening region 18 is tapered down to a thickness "t" (Kosmatka at Figure 2A). However, Kosmatka clearly does not teach or suggest that the vertical stiffening region has such a taper. In fact, Kosmatka teaches that the vertical stiffening region 16 has the same thickness T from the top to the bottom of the face 10 (e.g. has the same elevation from the top to the bottom of the face 10).

Therefore, Kosmatka teaches a portion (e.g., vertical stiffening portion 16) having a single, uniform thickness "T" which separates that left and right portions of the back surface of the face 10. Clearly, this is unlike the claimed invention in which a thin-walled portion is formed around a flat surface.

Moreover, even assuming (arguendo) that Kosmatka teaches a "flat surface" at a thick-walled portion, Kosmatka teaches that the "vertical stiffening portion 16" extends the entire height (e.g., from top to sole) of the club face. Therefore, the vertical stiffening region 16 certainly does not have an outermost periphery located at a central area of a face portion.

Therefore, Applicant would argue that these references would not have been combined and even if combined, the combination would not teach or suggest each and every element of the claimed invention.

III. FORMAL MATTERS AND CONCLUSION

In summary, Applicant would argue that the cited references do not teach or suggest each and every element and feature of the invention in claims 1-12 and 16-28.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any changes deemed necessary in a telephonic or personal interview.

The Commissioner is hereby authorized to charge any deficiencies in fees or credit any overpayment in fees to Attorney's Deposit Account No. 50-0481.

Respectfully submitted,

Date: 2/28/05

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